



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header 5

List View

General Information

Contact

Default Values

Discount

Document Information

Procurement Folder: 688128

SO Doc Code: CRFQ

Procurement Type: Central Purchase Order

SO Dept: 0211

Vendor ID: VC0000043029

SO Doc ID: GSD2000000036

Legal Name: CRITICAL POWER MANAGEMENT INC

Published Date: 3/3/20

Alias/DBA:

Close Date: 3/17/20

Total Bid: \$154,032.00

Close Time: 13:30

Response Date: 03/16/2020

Status: Closed

Response Time: 15:24

Solicitation Description: Transfer Switchgear for AEP Project

Total of Header Attachments: 5

Total of All Attachments: 5



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State of West Virginia
 Solicitation Response**

Proc Folder : 688128
 Solicitation Description : Transfer Switchgear for AEP Project
 Proc Type : Central Purchase Order

Date issued	Solicitation Closes	Solicitation Response	Version
	2020-03-17 13:30:00	SR 0211 ESR03162000000005313	1

VENDOR

VC0000043029
 CRITICAL POWER MANAGEMENT INC

Solicitation Number: CRFQ 0211 GSD2000000036

Total Bid : \$154,032.00 **Response Date:** 2020-03-16 **Response Time:** 15:24:42

Comments:

FOR INFORMATION CONTACT THE BUYER

Melissa Pettrey
 (304) 558-0094
 melissa.k.pettrey@wv.gov

Signature on File	FEIN #	DATE
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All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Medium voltage switchgear	1.00000	EA	\$154,032.000000	\$154,032.00

Comm Code	Manufacturer	Specification	Model #
39121115			

Extended Description :	Medium voltage switchgear
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March 16, 2020

Department Of Administration- Purchasing Division: Solicitation No: CRFQ 0211 GSD2000000036

To whom it may concern:

This letter is to inform the Department of Administration- Purchasing Division that Critical Power Management Inc is registered as a SWAM certified entity: Woman-Owned Business

Please see attached letter as proof of certification.

Thank You,

Emily Canterbury, President

Emily Canterbury, President

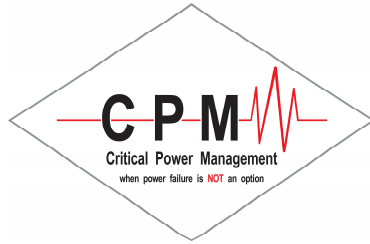
Critical Power Management Inc

PO Box 190

Elkview, WV 25071

When Power Failure is NOT an Option

Phone: 681-265-9383 email: ecanterbury@cpm.wv



March 09, 2020

Quote Number: 392020ES1

TO:

Bid Clerk
Department of Administration
Purchasing Division
2019 Washington St. E
Charleston, WV 25305

Phone: 304-558-0094
Fax:
Email:

PROPOSAL (Project: Medium Voltage Switch Gear)

I appreciate the opportunity to provide the following quotation for your consideration.

- **Product**
 - ASCO/ Schneider Electric Medium Voltage Transfer Switch
- **Service Voltage / HZ**
 - 13800V/60Hz
- **Amperage**
 - 1200
- **No. of Switched Poles**
 - 3
- **Enclosure**
 - Nema 3R
- **Service**
 - Three Phase, 3-wire
- **Accessories**
 - 2 pole D/T contacts that operate when emergency and normal source voltage is present at transfer switch terminals.
 - Manual selection between two utilities as to which utility will be designated as the preferred source.
 - 120VAC Accessory 44 Strip heater is designed to keep humidity and or temperature within the ATS enclosure at acceptable levels. This accessory consists of a mounting bracket with strip heater, thermostat and terminal block.
 - 5170 Quad- Ethernet Module provides transfer switch dashboard screen with password protected control capabilities, email alerts, and open protocol support in a single module with an integrated 4 port ethernet switch.
 - On Emergency: SR750 w/ Dev86 and CT's (No Ethernet)

- On Normal: SR750 w/Dev84 and CT's (No Ethernet)
- Bottom Conductor Entry (Normal, Emergency, Load)

Net Price.....\$154,032

Quote valid for **30** days. Created on **03/10/2020**

Only items listed in quotation are included in price.

Thank you for this opportunity and please contact me if you have any questions or need additional information.

Sincerely,

Evan Strickland

Phone: 681-265-9383

Mobile: 304-549-2264

Fax:

estrickland@cpmwv.com

Limited Warranty

ASCO Power Technologies®

7000 Series Medium Voltage Power Transfer Switches

This Warranty is given **ONLY** to purchasers who buy for commercial or industrial use in the ordinary course of each purchaser's business.

General:

ASCO Power Technologies, LP products and systems are in our opinion the finest available. We take pride in our products and are pleased that you have chosen them. Under certain circumstances we offer with our products the following Limited Warranty Against Defects in Material and Workmanship.

Please read your Warranty carefully. This Warranty sets forth our responsibilities in the unlikely event of defect and tells you how to obtain performance under this Warranty.

LIMITED WARRANTY AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP

ASCO PRODUCTS COVERED:

ASCO 7000 Series Medium Voltage Power Transfer Switch

Terms of Warranty:

The following Limited Warranty is conditioned upon User's compliance with the following:

1. The ASCO 7000 Series Medium Voltage Power Transfer Switch is installed in accordance with ASCO specifications and state and local codes and standards by an electrician licensed in the state of installation.
2. The ASCO 7000 Series Medium Voltage Power Transfer Switch is maintained in accordance with ASCO instructions and used under normal conditions for the purposes intended by ASCO.

As provided herein, the ASCO product is warranted to be free of defects in material and workmanship for a period of eighteen (18) months from date of shipment from ASCO provided that the product has been stored in a suitable environment prior to installation. The product shipment date will be determined only from the ASCO bill of lading. If any part or portion of the ASCO product fails to conform to the Warranty within the Warranty period, ASCO, at its option, will furnish new or factory remanufactured products for repair or replacement of that portion or part.

All warranty related repairs, replacements or adjustments must be made by ASCO Services Inc. or its duly authorized representative.

Warranty Extends to First Purchaser for Use, Non-transferable:

This Warranty is extended to the first person, firm, association or corporation for whom the ASCO product specified herein is originally installed for use (the "User") in the fifty United States or Canada. This Warranty is not transferable or assignable without the prior written permission of ASCO.

Assignment of Warranties:

ASCO assigns to User any warranties which are made by manufacturers and suppliers of components of, or accessories to, the ASCO product and which are assignable, but ASCO makes NO REPRESENTATIONS as to the effectiveness or extent of such warranties, assumes NO RESPONSIBILITY for any matters which may be warranted by such manufacturers or suppliers and extends no coverage under this Warranty to such components or accessories.

Drawings, Descriptions:

ASCO warrants for the period and on the terms of the Warranty set forth herein that the ASCO product will conform to the descriptions contained in the certified drawings, if any, applicable thereto, to ASCO's final invoices, and to applicable ASCO product brochures and manuals current as of the date of product shipment ("Descriptions"). ASCO does not control the use of any ASCO product. Accordingly, it is understood that the Descriptions are NOT WARRANTIES OF PERFORMANCE and NOT WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE.

Warranty Claims Procedure:

Within a reasonable time, but in no case to exceed thirty (30) days, after User's discovery of a defect, User shall contact ascopowerwarranty@ascopower.com. Subject to the limitations specified herein, an ASCO Services field service representative will repair the non-conforming ASCO product warranted hereunder without charge for parts, labor, or travel expenses. Warranty coverage will apply only after ASCO's inspection discloses the claimed defect and shows no signs of treatment or use that would void the coverage of this Warranty. All defective products and component parts replaced under this warranty become the property of ASCO.

Warranty Performance of Component Manufacturers:

It is ASCO's practice, consistent with its desire to remedy Warranty defects in the most prompt and effective manner possible, to cooperate with and utilize the services of component manufacturers and their authorized representatives in the performance of work to correct defects in the product components. Accordingly, ASCO may utilize third parties in the performance of Warranty work, including repair or replacement hereunder, where, in ASCO's opinion, such work can be performed in less time, with less expense, or in closer proximity to the ASCO product.

Items Not Covered By Warranty:

THIS WARRANTY DOES NOT COVER DAMAGE OR DEFECT CAUSED BY misuse, improper application, wrong or inadequate electrical current or connection, negligence, inappropriate on site operating conditions, repair by non-ASCO designated personnel, accident in transit, tampering, alterations, a change in location or operating use, exposure to the elements, water, or other corrosive liquids or gases, Acts of God, theft or installation contrary to ASCO's recommendations or specifications, or in any event if the ASCO serial number has been altered, defaced, or removed.

THIS WARRANTY DOES NOT COVER shipping costs, installation costs, external circuit breaker resetting or maintenance or service items and further, except as may be provided herein, does NOT include labor costs or transportation charges arising from the replacement of the ASCO product or any part thereof or charges to remove or reinstall same at any premises of User.

REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT OR PART THEREOF DOES NOT EXTEND THE ORIGINAL WARRANTY PERIOD.

THE PRODUCTS LISTED IN THIS WARRANTY ARE NOT FOR USE IN THE CONTROL AREA OR ANY REACTOR CONNECTED OR SAFETY APPLICATIONS OR WITHIN THE CONTAINMENT AREA OF A NUCLEAR FACILITY OR FOR INTEGRATION INTO MEDICAL DEVICES.

Limitations:

THIS WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

USER'S SOLE AND EXCLUSIVE REMEDY IS REPAIR OR REPLACEMENT OF THE ASCO PRODUCT AS SET FORTH HEREIN.

IF USER'S REMEDY IS DEEMED TO FAIL OF ITS ESSENTIAL PURPOSE BY A COURT OF COMPETENT JURISDICTION, ASCO'S RESPONSIBILITY FOR PROPERTY LOSS OR DAMAGE SHALL NOT EXCEED THE NET PRODUCT PURCHASE PRICE.

IN NO EVENT SHALL ASCO ASSUME ANY LIABILITY FOR INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES OF ANY KIND WHATSOEVER, INCLUDING WITHOUT LIMITATION LOST PROFITS, BUSINESS INTERRUPTION OR LOSS OF DATA, WHETHER ANY CLAIM IS BASED UPON THEORIES OF CONTRACT, NEGLIGENCE, STRICT LIABILITY, TORT, OR OTHERWISE.

Miscellaneous:

NO SALESPERSON, EMPLOYEE OR AGENT OF ASCO IS AUTHORIZED TO ADD TO OR VARY THE TERMS OF THIS WARRANTY. Warranty terms may be modified, if at all, only in writing signed by an ASCO officer.

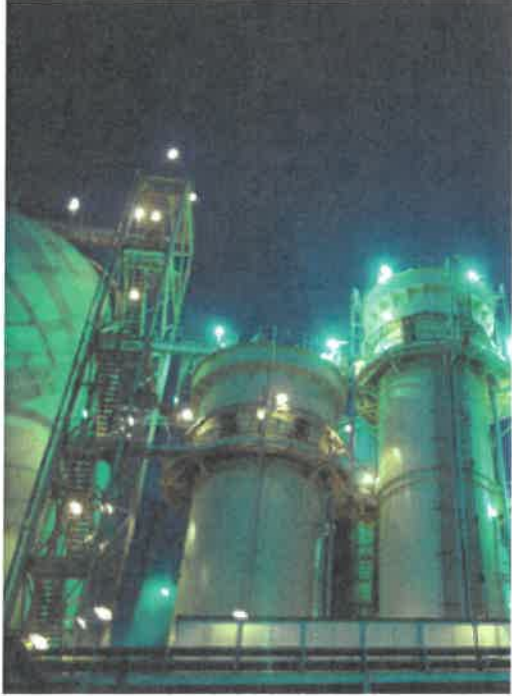
ASCO obligations under this Warranty are conditioned upon ASCO timely receipt of full payment of the product purchase price and any other amounts due. ASCO reserves the right to supplement or change the terms of this Warranty in any subsequent warranty offering to User or others.

In the event that any provision of this Warranty should be or becomes invalid and/or unenforceable during the warranty period, the remaining terms and provisions shall continue in full force and effect.

This Warranty shall be governed by, and construed under, the laws of the State of New Jersey, without reference to the conflict of laws principles thereof.

This Warranty represents the entire agreement between ASCO and User with respect to the subject matter herein and supersedes all prior or contemporaneous oral or written communications, representations, understandings or agreements relating to this subject.

**ASCO 7000 SERIES
Medium Voltage Transfer Switches**



ASCO[®]

7000 SERIES MEDIUM VOLTAGE POWER TRANSFER SWITCHES

Power continuity for:

- Data Centers
- Healthcare Facilities
- Telecom Exchanges
- Industrial Complexes
- Refineries
- Manufacturing Plants
- Batch Processes
- Retail Business Centers

The availability, quality and reliability of electrical power can impact life, safety, productivity and financial success.

ASCO Power Technologies provides solutions to assure the continuity of power, from the design stage to installation, start-up and beyond: complete coverage for continuous power.

ASCO products can transform what could be a major catastrophe into complete assurance.

With a variety of configurations, options and transfer modes including open, delayed, closed and soft load transitions, the ASCO 7000 SERIES Medium Voltage Power Transfer Switches deliver per specifications and are UL 1008A listed.



Pioneering technology, unsurpassed technical support and around-the-clock service anticipate and satisfy your evolving power monitoring and controls requirements for optimized energy efficiency.

THE INNOVATION OF ASCO MEDIUM VOLTAGE POWER TRANSFER SWITCHES

ASCO 7000 SERIES 2000-3000 Amp Medium Voltage Power Transfer Switch



ASCO 7000 SERIES 1200 Amp Medium Voltage Power Transfer Switch



An ASCO 7000 SERIES microprocessor-based controller (Transfer Control Center) manages breaker operation to transfer critical loads between power sources.

Comprising two voltage classes, 15 kV and 5 kV, the Medium Voltage Transfer Switch may be equipped with accessories and options to meet installation requirements. Additionally, custom engineered solutions per specifications may also be accommodated. Switch mode options include open transition, delayed transition, closed transition and soft-load operation.

Assemblies consist of metal-clad construction, barriered controls, removable element circuit breakers and voltage transformers, providing functionality at the nominal amperage and voltage.

Construction, testing and safety certifications include the following standards:

- ANSI/IEEE C37.20.2 – Standard for Metal-Clad Switchgear
- ANSI/NEMA C37.55 – Switchgear – Medium Voltage Metal-Clad Assemblies – Conformance Test Procedures
- UL 1008A Listed – Standard for Medium Voltage Transfer Switches

The chart below provides an overview of the different voltage, current and interrupt class ratings available.

Voltage Classes	Interrupt Classes (kA Symm.)	Rated Current (A)	Construction
15 kV	25	1200	Metal-Clad Switchgear per ANSI C37.20.2, UL 1008A listed, draw-out vacuum circuit breakers and utility grade transformers
	40	2000	
	50	3000	
5kV	40	1200	
	50	2000	
		3000	



Quality engineered with factory tests on every assembly.



Precision Engineered for rugged reliability.

ASCO 7000 SERIES MEDIUM VOLTAGE POWER TRANSFER SWITCHES

The ASCO 7000 SERIES Medium Voltage Power Transfer Switch provides superior protection, reliability and safeguarded maintenance. Compliant standards include:

- UL Listed per UL 1008A Standard for Medium Voltage Transfer Switches
- ANSI/IEEE C37.20.2 Standard for Metal-Clad Switchgear

The Medium Voltage Power Transfer Switch is rated at 5 kV or 15 kV, with current capacities of 1200 through 3000 amperes. Available interrupt capacity options for an assembly include 25, 40 or 50 kA classes (symmetrical).

The medium voltage transfer switch basic configuration consists of two to three vertical sections, depending upon the rated current; extensive metering, relaying and/or other options may require additional sections. Basic transfer switch configurations rated at 1200 amperes consist of two sections minimum, whereas switches rated at 2000 or 3000 amperes consist of three sections minimum. Combining the sections to form a single assembly, provisions such as seismic certification, secure outdoor enclosures, and many other special requirements can also be accommodated per customer specifications.

Key components and features include:

- ASCO 7000 SERIES Transfer Control Center
- Draw-Out and Shuttered Vacuum Circuit Breakers with Optional Protective Relaying:
 - One (1) Normal Source VCB for Transfer Switch
 - One (1) Emergency Source VCB for Transfer Switch
- Two (2) Normal Source Fused Draw-Out Voltage Transformers – (Open Delta)
- Two (2) Emergency Source Fused Draw-Out Voltage Transformers–(Open Delta)
- Epoxy insulated copper bus
- Protective barriers per ANSI C37.20.2 and UL 1008A to isolate major components.
- Type SIS control wire with durable printed wire markings directly on the insulation
- Fully integrated multi-section metal clad assembly



ASCO 7000 SERIES 1200 Amp
Medium Voltage Power Transfer Switch



ASCO 7000 SERIES 2000-3000 Amp
Medium Voltage Power Transfer Switch

ASCO 7000 SERIES MEDIUM VOLTAGE POWER TRANSFER SWITCHES

Base Model Features		
Voltage	5 kV / 15 kV	5 kV / 15 kV
Breaker Ampacity	1200 A	2000 A / 3000 A
Number of Sections (Minimum)	2	3
Nominal NEMA 1 Dimensions		
Footprint (per section)	36"Wx92"D	36"Wx92"D
Height	95"H	95"H
UL 1008A	Yes	Yes
ANSI C37.20.2	Yes	Yes
Seismic Certification Upon Request	Yes	Yes
Insulated Bus	Yes	Yes
Cable Barriers	Yes	Yes
11 Gauge Steel (Exterior Surfaces)	Yes	Yes
Draw-out Breakers		
Draw-out Breakers	Yes	Yes
Automatic Shutters	Yes	Yes
Grounded Barriers	Yes	Yes
Baked Electrostatic Powder Paint	Yes	Yes
Distribution Available	Yes	Yes
Protective Relays Available	Yes	Yes
NEMA 3R Non-Walk in Available	Yes	Yes

Codes & Standards

- UL 1008A Listed – Standard For Medium Voltage Transfer Switches
- National Electric Code (ANSI/NFPA 70)
 - Article 517 – Health Care Facilities
 - Article 700 – Emergency Systems
 - Article 701 – Legally Required Standby Systems
 - Article 702 – Optional Standby Systems
 - Article 708 – Critical Operations Power Systems

Certifications

- Seismic Certification – available upon request at order entry

Arc Safety

Specifications pertaining to arc safety can include arc resistant construction and arc detection relays.

Transfer Switch Controller

The ASCO 7000 Series Transfer Control Center, providing refined and proven transfer control for low and medium voltage switches, leverages almost a century of power transfer innovation and application experience.

Circuit Breakers

Circuit breakers provide superior reliability and maintainability compared to contactors. Each circuit breaker contains three separately mounted vacuum interrupters with an integral contact wear gap indicator. Stored energy devices allow fast operation to interrupt and isolate faults.

Breakers are designed and manufactured to assure safe withdrawal for inspection and facilitate maintenance. Normal Source and Emergency Source circuit breakers are interchangeable due to identical ratings and configuration, as standard. Stored energy mechanisms include electric motor charging and manual charging handle.

Instrument Transformers

Instrument transformers include Current Transformers (CT) and Voltage Transformers (VT, a.k.a. Potential Transformers - PT) to measure circuit voltage and current. Standard construction includes ANSI metering class transformers built per ANSI C57.13 to assure consistent and reliable performance. Additional VT features include grounded truck-mount to safely withdraw and facilitate maintenance, as well as fusing for circuit protection. Customer specifications requiring additional features such as revenue grade instrumentation, test blocks, and/or additional protective relaying may be accommodated as well.



The ASCO 7000 SERIES Medium Voltage Power Transfer Switches meet UL code requirements as well as NFPA/ANSI standards.

TRANSITION OPTIONS AND CONTROL MODES

Open Transition Transfer Switching (OTTS)

ASCO Open Transition Transfer Switches feature non-overlapping breaker operation, assuring that electrical power sources remain isolated and effectively interrupting the flow of power. The switch transfers in a 'break before make' mode.

Delayed Transition Transfer Switching (DTTS)

ASCO Delayed Transition Transfer Switches provide a prescribed disconnect time for load transfers between power sources. The adjustable period of delay allows stored energy loads to dissipate power. Stored energy loads may include motors and drives, rectifier banks, power correction and filtration devices, and load management applications. Interlocking prevents direct connection of both sources to the load concurrently.

Closed Transition Transfer Switching (CTTS)

ASCO Closed Transition Transfer Switches feature overlapping breaker operation, permitting the transfer of electrical loads while maintaining electrical continuity. The switch transfers in a 'make before break' mode if all synchronization parameters for both sources are within acceptable ranges. Control logic in the ASCO 7000 SERIES Transfer Control Center monitors source conditions and automatically determines if the transfer should be open (conventional non-overlap mode) or closed transition.

Closed transition transfers within 5 electrical degrees is achieved passively, without control of the engine generator set. Therefore, no additional control wire runs are required between the ATS and engine generator set governor or voltage regulator. Prescribed overlap time in a closed transition transfer typically occurs within 100 milliseconds.

Soft Load Operation and Transfer

In addition to functioning as an automatic transfer switch, ASCO Soft Load Transfer Switches provide source paralleling for continuous power load transfers, peak shaving, load curtailment and export/import control. Controls include active synchronization and power factor control via engine generator interfaces to the governor and voltage regulator.

Automatic and Manual Control Modes

The mode selector switch allows the user to select between automatic and manual control modes. Automatic control options include open, delayed and closed transition as well as soft load control. Electrically interlocked manual controls on the front door permit safe, user-supervised operation in non-automatic mode.

Breaker Control Switch



Allows the operator to trip the breaker in any control mode

Allows the operator to close the breaker in manual mode with interlock protection

"Trip", "Close", and "Pull to Lock" handle positions

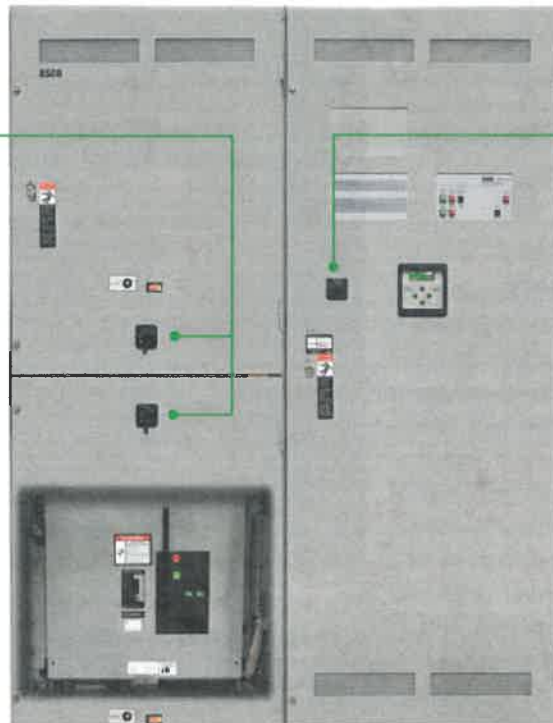
Indicator LEDs:
Closed = Red
Open = Green
Tripped = Amber
(protective relaying option)

Mode Selector Switch



The mode selector switch allows the user to select between automatic and manual control modes.

Every circuit breaker includes, on the front door of its compartment, a breaker control switch for manually opening and closing the circuit breaker when the system is in manual mode. Electrical interlocks prevent simultaneous closure of Normal and Emergency source breakers. Manual trip of Normal and Emergency source breakers functions in both automatic and manual modes.



OPTIONS AND SPECIFIED COMPONENTS

Protective Relays

Protective relays address circuit protection and coordination requirements not typically included in the scope of a transfer switch. Examples of circuit protection include:

- ANSI Device 32 – Directional Power
- ANSI Device 50 – Instantaneous Overcurrent
- ANSI Device 51 – AC Inverse Time Overcurrent
- ANSI Device 46 – Reverse Phase/Phase-Balance Current
- ANSI Device 47 – Phase Sequence/ Phase-Balance Voltage

An additional relay device, ANSI Device 86 – Lockout, assures fault acknowledgement by locking a breaker open after a fault trip. The lockout relay, once a fault trip occurs, requires manual intervention to reset the trip condition and allow the breaker to resume automatic control.

In addition to adjustable protection parameters, protective relays additionally facilitate the implementation of complex coordination requirements by allowing sophisticated trip curve tuning.

The ASCO 7000 SERIES Medium Voltage Power Transfer Switch includes standardized selections of protective relay options. Customer requirements of additional protective relaying may also be specified.

Communication and Connectivity

ASCO offers flexible and sophisticated communication options including a variety of technologies and protocols to meet connectivity requirements. Examples of peer and client/server communication options include RS-485 and Ethernet connectivity and Modbus™ protocols.

Additional capabilities include web servers, gateways and managed networks.

The ASCO Power Manager XP provides additional communication, protection and metering capabilities for normal and emergency sourcing as well as loads, particularly useful for metering total power, generator and utility, delivered to the load.

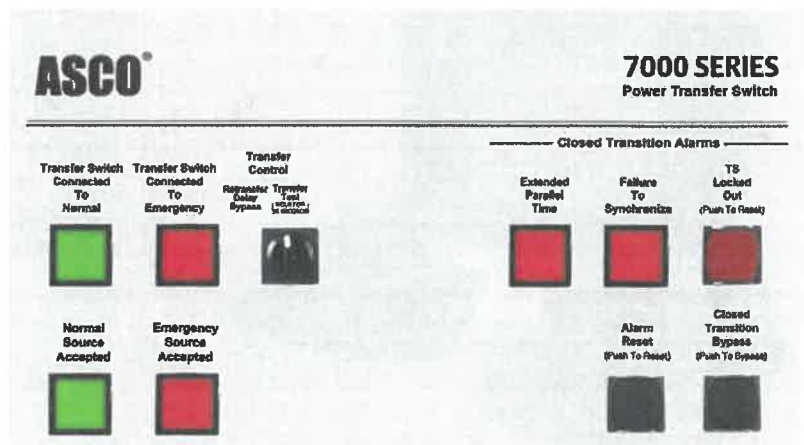
Power Monitoring

Power monitoring systems, commonly employed at many facilities with sophisticated power distribution, provide a focal point for systematic alarming, reports, control, diagnostic and operational information. As these systems become more sophisticated, providing analytical services such as operational evaluations and service scheduling, the importance of connectivity escalates.

Instrumentation, Control and Metering

With over a century of innovative firsts, ASCO excels in analog and digital instrumentation, controls and metering for electrical equipment. Specified items can include:

- PowerQuest® Critical Power Management Systems (CPMS)
- Analog and/or digital metering: current, voltage, power, power factor, frequency.
- Discrete indicator lights for status and control information at a glance
- Multi-ratio PTs and CTs
- Color touch screen interface



The ASCO 7000 SERIES Medium Voltage Power Transfer Switch includes the advanced 7000 SERIES Transfer Control Center, vacuum circuit breakers from leading manufacturers, utility grade instrumentation transformers and optional protective relays.



POWER CONTROL CENTER

7000 SERIES Transfer Control Center

The ASCO 7000 SERIES Transfer Control Center provides power transfer control to low voltage power transfer switches up to 4000 amperes and medium voltage power transfer switches up to 3000 amperes.

Leveraging ASCO's history and experience, the controller combines state-of-the-art microprocessor technology, superior noise immunity and advanced data computation and evaluation algorithms. It represents the standard for digital transfer switch technology to which all others are measured, processing voltage, current and frequency data, excelling in control logic, and reporting status and diagnostic information with real-time urgency.



ASCO 7000 SERIES
Microprocessor Controller

7000 SERIES Transfer Control Center Surge Specifications

Emission Standard - Group 1, Class A	EN 55011
Generic Immunity Standard	EN 50082-2
Electrostatic Discharge (ESD) Immunity	EN 61000-4-2
Radiated Electromagnetic Field Immunity	ENV 50140
Radiated RF Electromagnetic Field Immunity	EN 61000-4-3
Electrical Fast Transient (EFT) Immunity	EN 61000-4-4
Surge Transient Immunity	EN 61000-4-5
Conducted Radio-Frequency Field Immunity	EN 61000-4-6
Voltage Dips, Interruptions and Variations Immunity	EN 61000-4-11

ASCO 7000 SERIES TRANSFER CONTROL SYSTEM

Voltage and Frequency Sensing

- Under- and over-voltage settings on normal and emergency sources
- Under- and over-frequency settings on normal and emergency
- True RMS voltage sensing with +/- 1% accuracy
- Frequency sensing with +/- 0.2% accuracy
- Phase sequence sensing for phase sensitive loads
- Voltage unbalance detection between phases
- Frequency differentials and voltage differentials

Status and Control Features

- Output contact (N/O or N/C) for engine-start signals
- Selection between “commit/no-commit” on transfer to emergency after engine start and normal restores before transfer
- Event log displays 99 logged events with time/date stamp, event type and event reason
- Optional output signals for remote indication of normal and emergency source acceptability
- Statistical system monitoring data screens which provide:
 - Total number of transfers
 - Number of transfers caused by power source failure
 - Total number of days the transfer switch has been in operation
 - Total number of hours that the normal and emergency sources have been available

Time Delays

- Engine start time delay – adjustable from 0 to 6 seconds – delays engine starting signal to override momentary normal source loss
- Transfer to emergency time delay – adjustable from 0 to 60 minutes
- Emergency source stabilization time delay – adjustable from 0 to 6 seconds – ignores momentary transients during initial generator set loading
- Retransfer to normal – time delay with two settings:
 - Power failure mode – adjustable from 0 to 60 m
 - Test mode – adjustable from 0 to 10 h
 - Unloaded running time delay – adjustable from 0 to 60 minutes – provides engine cool-down time before shutting down the engine
- Pre- and post-transfer signal time delay – adjustable from 0 to 5 minutes – is for selective load disconnect with a programmable bypass on source failures. This signal can be used to drive a customer furnished relay, or optionally specify accessory 31Z for two (2) sets of double throw contacts rated 3 amperes at 480 volts AC
- Fully programmable engine exerciser with seven independent routines to exercise the engine generator, with or without loads, on a daily, weekly, bi-weekly or monthly basis.
- Closed transition transfer time delays include:
 - In-synch time delay – adjustable from 0 to 3 s
 - Failure to synchronize – adjustable from 1 to 5 m
 - Extended parallel – adjustable from 0.1 to 1.0 s
- Delayed transition load dis-connect time delay – adjust-able from 0 to 5 minutes – disconnects the load for the set period of time between power transfers (normal to emergency, or emergency to normal)

Features

- Digital microprocessor.
- Touch pad programming of features and settings without the need for meters or variable power supplies.
- On-board diagnostics provide status panel, integrated display and communication interface with system status and performance information.
- Displays and counts down active timing functions.
- Selectable multilingual display including English, German, Portuguese, Spanish, French and others upon request.
- Password protection to prevent unauthorized tampering with settings.
- Remote monitoring and control with ASCO PowerQuest[®] communications products.
- Historical event log.
- Statistical system monitoring information available via integrated display and communication interface.

ASCO 7000 SERIES MEDIUM VOLTAGE POWER TRANSFER SWITCH

ASCO Power products are designed to be the world's most robust, intelligent and advanced power transfer and control system with extensive diagnostic capabilities. The 7000 SERIES Medium Voltage Transfer Switch is engineered to safely provide continuous power in the widest range of emergency and standby power applications including industrial, commercial and business-critical facilities as well as health care campuses.

Manufactured and tested to exacting specifications, features include electrostatically applied powder coating for superior adhesion and protection, wiring harnesses with quick-lock plugs for easy removal of components or door assemblies for maintenance or upgrades and epoxy-coated bus. Additionally, factory-trained service and support is available 24 hours a day, 7 days a week – **continuous coverage for continuous power**. Subjected to stringent testing, the medium voltage power transfer switch meets or exceeds UL, ANSI, IEEE and NEMA standards and includes independent certifications from safety and seismic test laboratories.

ASCO Medium Voltage Transfer Switches Ordering Information

Medium Voltage Transfer Switch Catalog Numbers																		
Interrupt Rating	Product Series	Operation type	Transition type	Construction	Device Type	Neutral Type	Poles	Rated current (Amperes)	Voltage Rating	Controller	Accessories	Enclosure Type						
A 25 kA IC	7 7000 SERIES	A Automatic	O Open	T Transfer (Non-Soft Load)	M Dual CB Transfer Switch	O None	3 Poles	1200	T 2400 V U 4160 V V 11,000 V W 12,470 V X 13,200 V Z 14,400 V	5 7000 SERIES Transfer Control Center	X Per Accessory Number Z Per Specification	C NEMA1 M NEMA 3R (Secure)						
B 40 kA IC		N Non-Automatic	C Closed	L Soft Load Transfer		A Solid		2000	3 3,300 V 6 6,600 V 7 7,200V 8 10,000V 9 13,800V 0 Other									
C 50 kA IC			D Delayed	U (N)Service Entrance G (E) Service Entrance P (N+E) Service Entrance				3000										

ASCO Medium Voltage Transfer Switches Accessories

1G	External 24VDC auxiliary power connections (Standard on MVATS)
18B	2 pole D/T contacts that operate when emergency source voltage is present
18G	2 pole D/T contacts that operate when normal source voltage is present
30B	Load shed circuit
31Z	Selective load disconnect circuit
85L	Power Manager w/ Display on Load
138B	TOC Breaker Truck Operated Contact Switch
136A	3" Infrared Viewports
140	Power Quality Meter (customer to specify model, optional display, and connection N-E-L) Distribution, Intermediate and Utility Class Lightning Arrestors require customer specifications

Note: Distribution, intermediate and utility class lightning arrestors require customer specifications.



Throughout your business cycles, from design to post-installation service and support, ASCO provides unparalleled assistance to navigate through each step of the process and achieve your goals

COMPARE TECHNOLOGY, SUPPORT AND SERVICE

When evaluating manufacturers, compare their technology, technical support and service.

Technology

ASCO is the world's largest manufacturer of world-class power transfer technology.

ASCO **innovation** delivers more than 100 million kilowatts every day. Reliably. Repeatedly.

ASCO commercialized the first power transfer switch in 1920. Today, ASCO innovations stand as milestones in power transfer.

As with ASCO Low Voltage Power Transfer Switches, ASCO Medium Voltage Power Transfer Switches optimize reliability and total cost of ownership.

ASCO integrated systems are the benchmark for reliability, configurability and reduced maintenance.

Specify exactly the medium voltage transfer switch capabilities you need. With so much at stake, protect your facility's business-critical continuity, and your reputation.

Support

ASCO Support defines **collaboration**, comprising highly-skilled teams of factory-based and geographically dispersed applications engineers and project managers.

Properly specifying medium voltage power transfer switches demands a thorough understanding of a range of issues and challenges.

A team assigned to your project will work with you every step of the way, from design to commissioning.

It's our support that separates ASCO from the competition.

We will help you develop solutions that reduce installation costs, save time, improve operating efficiency, conserve utility and maintenance costs, and provide complete life cycle management, including upgrades and retrofits.

Service

ASCO Services comprises more than 125 nationwide service technicians, product specialists and engineers. Partnering with more than 450 factory-trained and authorized service representatives, ASCO provides unparalleled **assurance** worldwide.



**AUTOMATIC TRANSFER SWITCH
FOR USE IN EMERGENCY
SYSTEMS - OVER 600V
12 AC
ASCO POWER TECHNOLOGIES, L.P.**

ASCO Power Technologies - Global Headquarters

160 Park Avenue
Florham Park, NJ 07932
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customercare@ascopower.com

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ASCO. Innovative Solutions.

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Critical Power Management Inc

Authorized Signature: Emily Canterbury Date: 3/16/2020

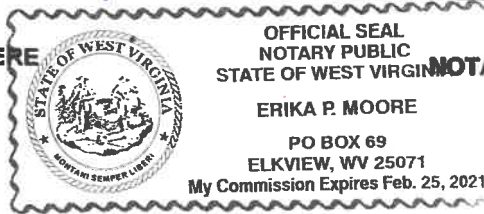
State of WV

County of Kanawha to-wit:

Taken, subscribed, and sworn to before me this 16 day of March, 2020

My Commission expires Feb 25, 2021 20

AFFIX SEAL HERE



NOTARY PUBLIC

Erika P Moore

Purchasing Affidavit (Revised 01/19/2018)